



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0020; Project Identifier MCAI-2021-00784-R; Amendment 39-22000; AD 2022-07-12]

RIN 2120-AA64

Airworthiness Directives; Hélicoptères Guimbal Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2021-02-20, which applied to certain Hélicoptères Guimbal (HG) Model Cabri G2 helicopters. AD 2021-02-20 required initial and repetitive inspections of certain rotating and non-rotating scissor fittings, and depending on the results, replacing the affected assembly. AD 2021-02-20 also prohibited installing certain main rotor hubs (MRHs) and swashplate guides unless the initial inspection was accomplished. This AD was prompted by a report of a crack in a rotating scissor fitting. This AD retains certain requirements of AD 2021-02-20, and requires installation of newly designed parts, provides a terminating action for the initial and repetitive inspections, and revises the applicability. This AD also extends the repetitive inspection interval and prohibits installing certain MRHs and swashplate guides. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of February 22, 2021 (86 FR 8299, February 5, 2021).

ADDRESSES: For service information identified in this final rule, contact Hélicoptères Guimbal, 1070, rue du Lieutenant Parayre, Aéroport d'Aix-en-Provence, 13290 Les Milles, France; telephone 33-04-42-39-10-88; email support@guimbal.com; or at <https://www.guimbal.com>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. Service information that is incorporated by reference is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0020.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0020; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Darren Gassetto, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7323; email Darren.Gassetto@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-02-20, Amendment 39-21403 (86 FR 8299, February 5, 2021) (AD 2021-02-20). AD 2021-02-20 applied to HG Model Cabri G2 helicopters, with rotating or non-rotating scissor fitting part number (P/N) G12-00-200, installed on the MRH or swashplate guide, respectively. The NPRM published in the *Federal Register* on January 31, 2022 (87 FR 4822). In the NPRM, the FAA proposed to retain certain inspection and corrective action requirements of AD 2021-02-20. The NPRM also proposed to require within 60 hours time-in-service (TIS) or 6 months, whichever occurs first after the effective date of the proposed AD, and thereafter at intervals not to exceed 60 hours TIS or 6 months, whichever occurs first, leaving each scissor fitting assembled and visually inspecting each scissor fitting for a crack. If there is a crack during the initial inspection or the recurring inspection, the NPRM proposed to require before further flight, replacing certain parts or as an alternative, installing HG modification (mod) 20-040.

The NPRM proposed to require, within 60 months or during the next main gearbox overhaul, whichever occurs first after the effective date of the proposed AD, removing from service MRH P/N G12-00-100, or G12-00-101, or G12-00-102 and swashplate guide P/N G21-01-101 or G21-01-102 and installing HG mod 20-040. The proposed NPRM also allowed installing HG mod 20-040 to be a terminating action for the initial and recurring visual inspections required by the proposed AD.

Additionally, for any pre-HG mod 20-040 helicopter, as of February 22, 2021 (the effective date of AD 2021-02-20), the NPRM proposed to prohibit installing an MRH or swashplate guide, with a certain part-numbered rotating or non-rotating scissor fitting installed, unless certain actions have been accomplished. For any post-HG mod 20-040 helicopter, as of the effective date of the proposed AD, the NPRM proposed to prohibit installing an MRH or swashplate guide, with a certain part-numbered rotating or non-rotating scissor fitting installed, on any helicopter.

The NPRM was prompted by EASA AD 2021-0155, dated July 2, 2021 (EASA AD 2021-0155), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for HG Cabri G2 helicopters, all manufacturer serial numbers. EASA advises that a design change was developed for the MRH and swashplate guide including installation instructions for the modification. EASA AD 2021-0155 advises the design change requires installing new scissor fitting P/N G12-00-202, which is not affected by stress corrosion cracking. EASA AD 2021-0155 further advises once a helicopter installs a certain part-numbered MRH and a certain part-numbered swashplate guide containing the newly designed scissor fitting, HG mod 20-040 is accomplished. This condition, if not addressed, could result in failure of a rotating or non-rotating scissor fitting and subsequent loss of control of the helicopter.

Accordingly, EASA AD 2021-0155 retains the requirements of EASA AD 2020-0199, dated September 21, 2020, and corrected September 24, 2020 (EASA AD 2020-0199), which prompted AD 2021-02-20, and requires replacement of the MRH and swashplate guide assemblies with assemblies equipped with the newly designed scissor fitting. EASA AD 2021-0155 also increases the interval for the repetitive inspection and prohibits any affected part to be installed on any helicopter that has HG mod 20-040 installed. EASA AD 2021-0155 allows a terminating action for the initial and repetitive inspections if the helicopter has been modified and includes the updated modification information.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. This AD is adopted as proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Guimbal Service Bulletin SB 20-012, Revision C; SB 20-011, Revision D; and SB 21-007 Revision C, each dated July 22, 2021 (SB 20-012 Rev C, SB 20-011 Rev D, and SB 21-007 Rev C). SB 20-012 Rev C specifies removing the bolts connecting the two scissor fittings P/N G12-00-200 and accomplishing a one-time detailed inspection for a crack in certain areas. SB 20-012 Rev C also specifies reassembling the two scissor fittings using correct bolt torque limits, installing new cotter pins, and reporting any findings to HG customer support.

SB 20-011 Rev D specifies procedures for a recurring inspection after accomplishment of SB 20-012 Rev C of the same areas of the scissor fittings for a crack as SB 20-012 Rev C, except without removing the bolts which connect the two scissor fittings. SB 20-011 Rev D also specifies reporting any findings to HG customer support. SB 21-007 Rev C specifies instructions for installing the newly designed scissor fitting.

This AD also requires Guimbal Service Bulletin SB 20-012, Revision B, dated October 5, 2020 (SB 20-012 Rev B), which the Director of the Federal Register approved for incorporation by reference as of February 22, 2021 (86 FR 8299, February 5, 2021).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Guimbal Service Bulletin SB 20-011, Revision C, dated October 5, 2020 (SB 20-011 Rev C). SB 20-011 Rev C specifies the same procedures as SB-20-011 Rev D, except SB 20-011 Rev D updates the applicability and references SB 21-007 Rev C.

The FAA reviewed Guimbal Service Bulletin SB 20-011, Revision B, and SB 20-012, Revision A, each dated September 1, 2020 (SB 20-011 Rev B and SB 20-012 Rev A). SB 20-012 Rev A specifies the same procedures as SB 20-012 Rev B, except SB 20-012 Rev B revises the compliance time, adds the EASA AD identification information, and updates the Situation section description. SB 20-011 Rev B specifies the same procedures as SB 20-011 Rev C, except SB 20-011 Rev C adds the EASA AD identification information and updates the Situation section description.

The FAA also reviewed Guimbal Service Bulletin SB 21-007, Revision B, dated April 4, 2021 which states the same procedures as SB 21-007 Rev C, except SB 21-007 Rev C revises the compliance time to coincide with the effective date of EASA AD 2021-0155.

Differences Between this AD and EASA AD 2021-0155

EASA AD 2021-0155 requires detailed inspections, whereas this AD requires cleaning each scissor fitting and visually inspecting each scissor fitting using a flashlight. EASA AD 2021-0155 also requires reporting certain information, whereas this AD does not. EASA AD 2021-0155 requires replacing certain parts if a crack is detected with serviceable parts, whereas this AD requires replacing certain parts with airworthy parts.

Costs of Compliance

The FAA estimates that this AD affects 32 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Removing and installing the bolt and cotter pins in the initial inspection takes a minimal amount of time with a minimal parts cost.

Inspecting each scissor fitting takes about 0.5 work-hour for an estimated cost of \$43 per fitting, per inspection cycle. There are 2 scissor fittings installed on a helicopter,

for an estimated cost of \$85 per helicopter and \$2,720 for the U.S. fleet, per inspection cycle.

Removing an MRH and swashplate guide and installing the improved MRH and swashplate guide takes about 6 work-hours and parts cost about \$1,608 through the parts exchange program for an estimated cost of \$2,118 per helicopter and \$67,776 for the U.S. fleet. The FAA expects the majority of operators to use the parts exchange program. If not accomplished through the parts exchange program, an improved MRH and swashplate guide costs about \$8,695 for an estimated cost of \$9,205 per helicopter and \$294,560 for the U.S. fleet.

The FAA estimates the following costs to do any necessary on-condition replacements that are required based on the results of the inspection. The agency has no way of determining the number of aircraft that might need these on-condition replacements:

Replacement of an MRH due to a crack in the scissor fitting with an airworthy MRH takes about 5 work-hours and parts cost about \$7,360 for an estimated cost of \$7,785 per helicopter; and replacement of a swashplate guide due to a crack in the scissor fitting with an airworthy swashplate guide takes about 6 work-hours and parts cost about \$1,312 for an estimated cost of \$1,822 per helicopter.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive 2021-02-20, Amendment 39-21403 (86 FR 8299, February 5, 2021); and

- b. Adding the following new airworthiness directive:

2022-07-12 Hélicoptères Guimbal: Amendment 39-22000; Docket No. FAA-2022-0020; Project Identifier MCAI-2021-00784-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-02-20, Amendment 39-21403 (86 FR 8299, February 5, 2021) (AD 2021-02-20).

(c) Applicability

This AD applies to Hélicoptères Guimbal (HG) Model Cabri G2 helicopters, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6700, Rotorcraft Flight Control; 6710, Main Rotor Control.

(e) Unsafe Condition

This AD was prompted by a report of a crack in a rotating scissor fitting. The FAA is issuing this AD to detect a crack and prevent failure of a scissor fitting. The unsafe condition, if not addressed, could result in failure of a rotating or non-rotating scissor fitting and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

For helicopters with rotating or non-rotating scissor fitting part number (P/N) G12-00-200, installed on the main rotor hub (MRH) or swashplate guide, respectively:

(1) Within 30 hours time-in-service (TIS) or 30 calendar days, whichever occurs first after February 22, 2021 (the effective date of AD 2021-02-20):

(i) Remove the cotter pins and bolts connecting the rotating and non-rotating scissor fitting by following the Required Actions, IPC 4.1-2 a), of Guimbal Service Bulletin SB 20-012, Revision B, dated October 5, 2020 (SB 20-012 Rev B). Remove the cotter pins from service. Clean each scissor fitting. Using a flashlight, visually inspect each scissor fitting by following the Required Actions, IPC 4.1-2 b), of SB 20-012 Rev B. As an alternative to using SB 20-012 Rev B, you may remove the cotter pins and bolts in accordance with the Required Actions, IPC 4.1-2 a), of Guimbal Service Bulletin SB 20-012, Revision C, dated July 22, 2021 (SB 20-012 Rev C), and visually inspect each scissor fitting in accordance with the Required Actions, IPC 4.1-2 b), of SB 20-012 Rev C.

(ii) If there is a crack, before further flight, replace the MRH or swashplate guide with an airworthy part as applicable; or, as an alternative, you may accomplish the modification specified in paragraph (g)(3) of this AD.

(iii) If there is not a crack, reassemble the scissor fittings by following the Required Actions, IPC 4.1-2 c), of SB 20-012 Rev B. As an alternative to using SB 20-012 Rev B, you may reassemble the scissor fittings in accordance with the Required Actions, IPC 4.1-2 c), of SB 20-012 Rev C.

(2) Thereafter, within 60 hours TIS or 6 months, whichever occurs first after the effective date of this AD, and thereafter at intervals not to exceed 60 hours TIS or 6 months, whichever occurs first:

(i) Leaving each rotating and non-rotating scissor fitting assembled, clean each scissor fitting. Using a flashlight, visually inspect each scissor fitting by following the Required Actions, IPC 4.1-2 a), of Guimbal Service Bulletin SB 20-011, Revision D, dated July 22, 2021.

(ii) If there is a crack, before further flight, replace the MRH or swashplate guide, with an airworthy part as applicable; or, as an alternative, you may accomplish the modification specified in paragraph (g)(3) of this AD.

(3) Within 60 months, or during the next main gearbox overhaul, whichever occurs first after the effective date of this AD, remove MRH P/N G12-00-100, or G12-00-101, or G12-00-102 and swashplate guide P/N G21-01-101 or G21-01-102 from service and modify your helicopter by installing MRH P/N G12-00-103 and swashplate guide P/N G21-01-103 containing scissor fitting P/N G12-00-202 (HG modification (mod) 20-040) by following the Required Actions, IPC 2.1-0 a) through k) and m) through aa) of Guimbal Service Bulletin SB 21-007, Revision C, dated July 22, 2021.

Note 1 to paragraph (g)(3): HG mod 20-040, as referenced in paragraphs (g)(3), and (h)(1) and (2) of this AD, is accomplished after installation of MRH P/N G12-00-103 and swashplate guide P/N G21-01-103 containing scissor fitting P/N G12-00-202.

(4) Completing the actions required by paragraph (g)(3) of this AD constitutes a terminating action for the requirements in paragraphs (g)(1) and (2) of this AD.

(h) Parts Installation

(1) For any pre-HG mod 20-040 helicopter: As of February 22, 2021 (the effective date of AD 2021-02-20), do not install an MRH or swashplate guide, with rotating or non-rotating scissor fitting P/N G12-00-200 installed, respectively, on any helicopter, even if new, unless the actions required by paragraph (g)(1) of this AD have been accomplished.

(2) For any post-HG mod 20-040 helicopter: As of the effective date of this AD, do not install an MRH or swashplate guide, with rotating or non-rotating scissor fitting P/N G12-00-200 installed, respectively, on any helicopter.

(i) Credit for Previous Actions

(1) This paragraph provides credit for the actions required by paragraph (g)(1) of this AD if you accomplished Guimbal Service Bulletin SB 20-012, Revision A, dated September 1, 2020, before February 22, 2021 (the effective date of AD 2021-02-20).

(2) This paragraph provides credit for the first instance of the actions required by paragraph (g)(2) of this AD if you accomplished Guimbal Service Bulletin SB 20-011, Revision B, dated September 1, 2020, before February 22, 2021 (the effective date of AD 2021-02-20).

(3) This paragraph provides credit for the actions required by paragraph (g)(2) of this AD if you accomplished Guimbal Service Bulletin SB 20-011, Revision C, dated October 5, 2020, before the effective date of this AD.

(4) This paragraph provides credit for the actions required by paragraph (g)(3) of this AD if you accomplished Guimbal Service Bulletin SB 21-007, Revision B, dated April 4, 2021, before the effective date of this AD.

(j) Special Flight Permits

A special flight permit may be permitted provided that there are no passengers onboard, and the flight is operating under day Visual Flight Rules, for the purpose of ferrying the helicopter to an authorized maintenance facility.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Related Information

(1) For more information about this AD, contact Darren Gassetto, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7323; email Darren.Gassetto@faa.gov.

(2) Service information identified in this AD is available at the contact information specified in paragraphs (m)(5) and (6).

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2021-0155, dated July 2, 2021. You may view the EASA AD on the internet at <https://www.regulations.gov> in Docket No. FAA-2022-0020.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Guimbal Service Bulletin SB 20-011, Revision D, dated July 22, 2021.

(ii) Guimbal Service Bulletin SB 20-012, Revision C, dated July 22, 2021.

(iii) Guimbal Service Bulletin SB 21-007 Revision C, dated July 22, 2021.

(4) The following service information was approved for IBR on February 22, 2021 (86 FR 8299, February 5, 2021).

(i) Guimbal Service Bulletin SB 20-012, Revision B, dated October 5, 2020.

(ii) [Reserved]

(5) For Hélicoptères Guimbal service information identified in this AD, contact Hélicoptères Guimbal, 1070, rue du Lieutenant Parayre, Aéroport d'Aix-en-Provence, 13290 Les Milles, France; telephone 33-04-42-39-10-88; email support@guimbal.com; web <https://www.guimbal.com>.

(6) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 24, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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